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- 1 -

SEQUENCE LISTING

<110> Evotec NeuroSciences GmbH

<120> Diagnostic and therapeutic use of FOAP-13
polynucleotides and polypeptides for neurodegenerative
diseases

<130> 031985wo ME/BM

<140>

<141>

<150> 02019281.1

<151> 2002-08-28

<160> 18

<170> PatentIn Ver. 2.1

<210> 1

<211> 390

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA fragment
of the foap-13 gene

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cttggcctga ccctggctcg gtctcagaat cactttccc atctgtaaaa ttgagatgaa 180
ttttgggttt gaaagttctt cctggagcag atgtcctaga aggttttagg aataagtgaca 240
gagtcaggcc accccaaggg ccatggagc cagctgaccc gcttgaccga aggatttctg 300
acagactatac tttggggatg tttcaagaa ggatataag ttatttactt tggcattta 360
aaagaaaatt tctctcggya ataattttat 390

<210> 2

<211> 491

<212> PRT

<213> Homo sapiens

<400> 2

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Gly | Gln | Gly | Leu | Pro | Leu | His | Val | Ala | Thr | Leu | Leu | Thr | Gly |
| 1 | | | | | | | | | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Glu | Cys | Leu | Gly | Phe | Ala | Gly | Val | Leu | Phe | Gly | Trp | Pro | Ser |
| | | | | | | | | | | | | | 20 | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Phe | Val | Phe | Lys | Asn | Glu | Asp | Tyr | Phe | Lys | Asp | Leu | Cys | Gly |
| | | | | | | | | | | | | | 35 | 45 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Ala | Gly | Pro | Ile | Gly | Asn | Ala | Thr | Gly | Gln | Ala | Asp | Cys | Lys |
| | | | | | | | | | | | | | 50 | 60 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Asp | Glu | Arg | Phe | Ser | Leu | Ile | Phe | Thr | Leu | Gly | Ser | Phe | Met |
| | | | | | | | | | | | | | 65 | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Phe | Met | Thr | Phe | Pro | Thr | Gly | Tyr | Ile | Phe | Asp | Arg | Phe | Lys |
| | | | | | | | | | | | | | 85 | 95 | |

- 2 -

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Val | Ala | Arg | Leu | Ile | Ala | Ile | Phe | Phe | Tyr | Thr | Thr | Ala | Thr |
| | | | | | 100 | | | | 105 | | | | | 110 | |
| Leu | Ile | Ile | Ala | Phe | Thr | Ser | Ala | Gly | Ser | Ala | Val | Leu | Leu | Phe | Leu |
| | | | | | 115 | | | 120 | | | | 125 | | | |
| Ala | Met | Pro | Met | Leu | Thr | Ile | Gly | Gly | Ile | Leu | Phe | Leu | Ile | Thr | Asn |
| | | | | | 130 | | 135 | | | 140 | | | | | |
| Leu | Gln | Ile | Gly | Asn | Leu | Phe | Gly | Gln | His | Arg | Ser | Thr | Ile | Ile | Thr |
| | | | | | 145 | | 150 | | 155 | | | 160 | | | |
| Leu | Tyr | Asn | Gly | Ala | Phe | Asp | Ser | Ser | Ser | Ala | Val | Phe | Leu | Ile | Ile |
| | | | | | 165 | | 170 | | | 175 | | | | | |
| Lys | Leu | Leu | Tyr | Glu | Lys | Gly | Ile | Ser | Leu | Arg | Ala | Ser | Phe | Ile | Phe |
| | | | | | 180 | | 185 | | | 190 | | | | | |
| Ile | Ser | Val | Cys | Ser | Thr | Trp | His | Val | Ala | Arg | Thr | Phe | Leu | Leu | Met |
| | | | | | 195 | | 200 | | 205 | | | | | | |
| Pro | Arg | Gly | His | Ile | Pro | Tyr | Pro | Leu | Pro | Pro | Asn | Tyr | Ser | Tyr | Gly |
| | | | | | 210 | | 215 | | 220 | | | | | | |
| Leu | Cys | Pro | Gly | Asn | Gly | Thr | Thr | Lys | Glu | Glu | Lys | Glu | Thr | Ala | Glu |
| | | | | | 225 | | 230 | | 235 | | | 240 | | | |
| His | Glu | Asn | Arg | Glu | Leu | Gln | Ser | Lys | Glu | Phe | Leu | Ser | Ala | Lys | Glu |
| | | | | | 245 | | 250 | | | 255 | | | | | |
| Glu | Thr | Pro | Gly | Ala | Gly | Gln | Lys | Gln | Glu | Leu | Arg | Ser | Phe | Trp | Ser |
| | | | | | 260 | | 265 | | 270 | | | | | | |
| Tyr | Ala | Phe | Ser | Arg | Arg | Phe | Ala | Trp | His | Leu | Val | Trp | Leu | Ser | Val |
| | | | | | 275 | | 280 | | 285 | | | | | | |
| Ile | Gln | Leu | Trp | His | Tyr | Leu | Phe | Ile | Gly | Thr | Leu | Asn | Ser | Leu | Leu |
| | | | | | 290 | | 295 | | 300 | | | | | | |
| Thr | Asn | Met | Ala | Gly | Gly | Asp | Met | Ala | Arg | Val | Ser | Thr | Tyr | Thr | Asn |
| | | | | | 305 | | 310 | | 315 | | | 320 | | | |
| Ala | Phe | Ala | Phe | Thr | Gln | Phe | Gly | Val | Leu | Cys | Ala | Pro | Trp | Asn | Gly |
| | | | | | 325 | | 330 | | 335 | | | | | | |
| Leu | Leu | Met | Asp | Arg | Leu | Lys | Gln | Lys | Tyr | Gln | Lys | Glu | Ala | Arg | Lys |
| | | | | | 340 | | 345 | | 350 | | | | | | |
| Thr | Gly | Ser | Ser | Thr | Leu | Ala | Val | Ala | Leu | Cys | Ser | Thr | Val | Pro | Ser |
| | | | | | 355 | | 360 | | 365 | | | | | | |
| Leu | Ala | Leu | Thr | Ser | Leu | Leu | Cys | Leu | Gly | Phe | Ala | Leu | Cys | Ala | Ser |
| | | | | | 370 | | 375 | | 380 | | | | | | |
| Val | Pro | Ile | Leu | Pro | Leu | Gln | Tyr | Leu | Thr | Phe | Ile | Leu | Gln | Val | Ile |
| | | | | | 385 | | 390 | | 395 | | | 400 | | | |
| Ser | Arg | Ser | Phe | Leu | Tyr | Gly | Ser | Asn | Ala | Ala | Phe | Leu | Thr | Leu | Ala |
| | | | | | 405 | | 410 | | 415 | | | | | | |
| Phe | Pro | Ser | Glu | His | Phe | Gly | Lys | Leu | Phe | Gly | Leu | Val | Met | Ala | Leu |

- 3 -

420 425 430

Ser Ala Val Val Ser Leu Leu Gln Phe Pro Ile Phe Thr Leu Ile Lys
435 440 445

Gly Ser Leu Gln Asn Asp Pro Phe Tyr Val Asn Val Met Phe Met Leu
450 455 460

Ala Ile Leu Leu Thr Phe Phe His Pro Phe Leu Val Tyr Arg Glu Cys
465 470 475 480

Arg Thr Trp Lys Glu Ser Pro Ser Ala Ile Ala
485 490

<210> 3

<211> 2630

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA of the
human foap-13 gene

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ctccccggga gctatttggga tccagagaat cacccgctga tggttttcc ccaggcctga 180
aacaaaccaga gagctacggg aaagaaaggg cttggcttg cagaggatt ttccaagtgc 240
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- 4 -

ggctctccct caagagtgcg gccttggcta gagaactcac agctctggga aaaagaggag 2280
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<210> 4
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: one-base
anchor oligonucleotide

<400> 4
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13

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<210> 5
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: one-base
anchor oligonucleotide

<400> 5
htttttttt ttg

13

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<210> 6
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: one-base
anchor oligonucleotide

<400> 6
htttttttt ttc

13

)

<210> 7
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the
foap-13 gene

<400> 7
tcaggtgaag agtgaggatg tca

23

<210> 8

- 5 -

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the foap-13 gene

<400> 8
ggctgcactc ttgagggaga

20

<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the cyclophilin B gene

<400> 9

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<210> 10
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the cyclophilin B gene

<400> 10

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19

<210> 11
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the ribosomal protein S9

<400> 11

ggtcaaattt accctggcca

20

<210> 12
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the ribosomal protein S9

<400> 12

tctcatcaag cgtcagcagt tc

22

- 6 -

<210> 13
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the
beta-actin gene

<400> 13
tggaacggtg aaggtgaca

19

<210> 14
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the
beta-actin gene

<400> 14
ggcaagggac ttcctgtaa

19

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the
GAPDH gene

<400> 15
cgtcatgggt gtgaaccatg

20

<210> 16
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the
GAPDH gene

<400> 16
gctaaggcgt tggtggtgca g

21

<210> 17
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the
transferrin receptor (TRR)

- 7 -

<400> 17
gtcgctggtc agttcgtgat t

21

<210> 18
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer for the
transferrin receptor (TRR)

<400> 18
agcagttggc tgggttacct ctc

23